

**What is claimed is:**

1. A method for modulating metabolism of pathogenic Mycoplasma bacteria comprising the step of contacting pathogenic Mycoplasma bacteria with an antibacterially effective amount of a composition comprising a gemifloxacin compound, or antibacterially effective derivatives thereof.

2. The method of claim 1 wherein said pathogenic Mycoplasma bacteria is selected from the group consisting of:

*Mycoplasma pneumoniae, M. hominis, M. fermentans, M. genitalium, M. penetrans* and *Ureaplasma urealyticum*.

10 3. A method of treating or preventing a bacterial infection by pathogenic Mycoplasma bacteria comprising the step of administering an antibacterially effective amount of a composition comprising a gemifloxacin compound to a mammal suspected of having or being at risk of having an infection with pathogenic Mycoplasma bacteria.

15 4. The method of claim 3 wherein said pathogenic Mycoplasma bacteria is selected from the group consisting of:

*Mycoplasma pneumoniae, M. hominis, M. fermentans, M. genitalium, M. penetrans* and *Ureaplasma urealyticum*.

5. The method of claim 1 wherein said modulating metabolism is inhibiting growth of said bacteria.

20 6. The method of claim 1 wherein said modulating metabolism is killing said bacteria.

7. The method of claim 1 wherein said contacting said bacteria comprises the further step of introducing said composition into a mammal.

8. The method of claim 3 wherein said mammal is a human.

25 9. The method of claim 7 wherein said mammal is a human.

10. The method of claim 1 wherein said bacteria is selected from the group consisting of: *Mycoplasma pneumoniae, M. hominis, M. fermentans, M. genitalium, M. penetrans* and *Ureaplasma urealyticum*.

30 11. The method of claim 1 wherein said bacteria is selected from the group consisting of: *Mycoplasma pneumoniae, M. hominis, M. fermentans, M. genitalium, M. penetrans* and *Ureaplasma urealyticum*.